

Lake McBride Lake Vegetation Index Results (10-7-2014)

The Lake Vegetation Index (LVI) is a multi-metric index that evaluates how closely a lake's plant community resembles one that would be expected in a condition of minimal human disturbance. It is based on a rapid field assessment of aquatic and wetland plants as indicators of various effects of human disturbance over time. Plants respond to physical disturbances such as introduc-

tion of exotic species or lakeshore alterations, and chemical disturbance such as introduction of excess nutrients, particulates, or herbicides from the surrounding land uses.

The LVI method is performed from a boat, and involves dividing a lake into 12 units and identifying plants in 4 of the 12 units. Plants are identified in the selected unit by a visual boat "drive by" and also via a transect approach. The resulting data is used to calculate the LVI and is evaluated according to the scoring system in Table 1.

TABLE 1. Category names, ranges of values for LVI, and example descriptions of biological conditions typically found for that category.

<i>Aquatic life use category</i>	<i>LVI Range</i>	<i>Description</i>
Exceptional	78–100	Nearly every plant present is a species native to Florida, invasive taxa typically not found. About 30% of taxa present are identified as sensitive to disturbance.
Healthy	43–77	About 85% of plant taxa are native to Florida; invasive taxa present. Sensitive taxa have declined to about 15%.
Impaired	0–42	About 70% of plant taxa are native to Florida. Invasive taxa may represent up to 1/3 of total taxa. Less than 10% of the taxa are sensitive.

The Lake Vegetation Index score for Lake McBride was 67, placing the lake's vegetative community in the healthy category.

Sixty seven plant species were found during the survey. The native species, fanwort (*Cabomba caroliniana*) and fragrant waterlily (*Nymphaea odorata*), were the most dominant plants in the lake followed by spatterdock (*Nuphar* sp.), fragrant waterlily (*Nymphaea odorata*), watershield (*Brasenia schreberi*), and bladderwort (*Utricularia* spp.). Other native shoreline vegetation included; red maple (*Acer rubrum*), but-

tonbush (*Cephalanthus occidentalis*) and pickerelweed (*Pontederia cordata*).

Unfortunately, wild taro (*Colocasia esculenta*), water spangles (*Salvinia minima*), and Chinese tallow (*Sapium sebiferum*), listed as Category I Invasive Exotics by the Florida Exotic Pest Plant Council are invasive exotics that are a concern in Lake McBride. A plant previously found in Lake McBride, hydrilla (*Hydrilla verticillata*), another Category I Invasive Exotic, was not found during this year's survey. Alligator weed (*Alternanthera philoxeroides*), a Category II Invasive Exotic, was found for the first time in

Lake McBride in 2013 and is still present. Burhead sedge (*Scirpus cubensis*) was also found in Lake McBride and is especially prevalent on the tussocks found in and along the edges of the lake. Experts are in disagreement about

whether this species is native or non-native to Florida.

For a complete list of plants found during the LVI survey, please see Table 2.

TABLE 2. Scientific and common names of the plants identified during the Lake McBride LVI survey (10-12-14).

Scientific Name	Common Name
<i>Acer rubrum</i>	red maple
<i>Alternanthera philoxeroides(II)</i>	alligator weed
<i>Andropogon</i> sp.	broomsedge
<i>Bacopa caroliniana</i>	lemon Bacopa
<i>Bidens laevis</i>	smooth beggartick
<i>Bidens mitis</i>	smallfruit beggartick
<i>Boehmeria cylindrica</i>	false nettle
<i>Brasenia schreberi</i>	watershield
<i>Cabomba caroliniana</i>	fanwort
<i>Catalpa bignonioides</i>	southern Batalpa
<i>Cephalanthus occidentalis</i>	buttonbush
<i>Ceratophyllum demersum</i>	coontail
<i>Colocasia esculenta (I)</i>	wild taro
<i>Cyperus odoratus</i>	fragrant flatsedge
<i>Cyrilla racemiflora</i>	swamp titi
<i>Decodon verticillatus</i>	swamp loosestrife
<i>Dulichium arundinaceum</i>	three-way sedge
<i>Eleocharis baldwinii</i>	road-grass
<i>Eupatorium capillifolium</i>	dogfennel
<i>Fuirena breviseta</i>	saltmarsh umbrella sedge
<i>Habenaria repens</i>	water spider orchid
<i>Hydrocotyle</i> sp.	water pennywort
<i>Hydrolea quadrivalvis</i>	waterpod
<i>Juncus marginatus</i>	grassleaf rush
<i>Leersia hexandra</i>	southern cutgrass
<i>Leucothoe racemosa</i>	sweetbells
<i>Limnobium spongia</i>	frog's bit
<i>Liquidamber styraciflua</i>	American sweetgum
<i>Ludwigia arcuata</i>	needleleaf Ludwigia
<i>Ludwigia leptocarpa</i>	anglestem primrose willow
<i>Ludwigia sphaerocarpa</i>	globe-fruited primrose willow
<i>Luziola fluitans</i>	southern watergrass

<i>Lycopus rubellus</i>	taperleaf water horehound
<i>Magnolia virginiana</i>	sweetbay magnolia
<i>Mayaca fluviatilis</i>	stream bogmoss
<i>Mikania scandens</i>	climbing hempvine
<i>Myriophyllum heterophyllum</i>	twoleaf watermilfoil
<i>Myriophyllum pinnatum</i>	cutleaf watermilfoil
<i>Nuphar</i> sp.	spatterdock
<i>Nymphaea odorata</i>	fragrant waterlily
<i>Nyssa sylvatica</i> var. <i>biflora</i>	swamp tupelo
<i>Paspalum</i> sp.	paspalum
<i>Pinus taeda</i>	loblolly pine
<i>Polygonum densiflorum</i> (glabrum)	denseflower knotweed
<i>Polygonum hirsutum</i>	hairy smartweed
<i>Polygonum punctatum</i>	dotted smartweed
<i>Pontederia cordata</i>	pickerelweed
<i>Quercus nigra</i>	water oak
<i>Quercus virginiana</i>	southern live oak
<i>Rhexia mariana</i>	Maryland meadowbeauty
<i>Riccia fluitans</i>	crystalwort
<i>Saccharum giganteum</i>	sugarcane plumegrass
<i>Sacciolepis striata</i>	American cupscale-grass
<i>Sagittaria lancifolia</i>	duck potato
<i>Sagittaria latifolia</i>	broadleaf arrowhead
<i>Salix carolina</i>	coastal plain willow
<i>Salvinia minima</i>(I)	water spangles
<i>Sapium sebiferum</i>(I)	Chinese tallow tree
<i>Scirpus cubensis</i>	burhead sedge
<i>Scirpus cyperinus</i>	woolgrass
<i>Sphagnum</i> sp.	sphagnum moss
<i>Taxodium ascendens</i>	pond cypress
<i>Triadenum virginicum</i>	marsh St. John's wort
<i>Typha</i> sp.	cattail
<i>Utricularia biflora</i> (U. <i>gibba</i>)	humped bladderwort
<i>Utricularia purpurea</i>	eastern purple bladderwort
<i>Utricularia</i> sp.	bladderwort
<i>Xyris jupicai</i>	Richard's yellow-eyed grass

I- Category I Invasive Exotics

II- Category II Invasive Exotics

For additional information about the LVI please review the Florida Department of Environmental Protection's [LVI Primer document](#).

For more detailed information about the above species, please visit the [Atlas of Florida Vascular Plants](#) website.

For additional information about Category I and II invasive exotic plants, please visit the [Florida Exotic Pest Plant Council](#) webpage.